SEMIO workshop

SEMIO-Workshop

A platform for African and non-African scientists
on insect chemical ecology and integrated pest management
www.semio-workshop.org

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Dear all,

SEMIO-11 is a platform for collaborations between African and non-African scientists in the field of chemical ecology and integrated pest management. We welcome all almost 80 participants to *icipe* in Nairobi for three days of inspiring presentations and interesting discussions!

The aim of the meeting is to highlight and discuss potential areas for further research to ensure food security and sustainable development. Focus is on plant protection and vector management, and the potential of chemical ecology as a tool in multilevel IPM strategies.

SEMIO-11 is a follow-up to the SEMIO-08 meeting, held in 2008 in Arusha, Tanzania, that sparked several collaborative projects. We hope that SEMIO-11 will be equally fruitful, strengthening ongoing collaborative ties, promoting new networks and highlighting new openings for an integrated approach in pest management research.

The current webpage with which you are familiar (http://semio-workshop.org/) will remain active and updated also after the workshop. Please do visit the website and comment how we can improve its functionality to serve its community best.

For the organizing committee,

Teun Dekker Ylva Hillbur

Ylva Hillbur, Teun Dekker - Swedish University of Agricultural Sciences, SLU
Christian Borgemeister, Baldwyn Torto, Sunday Ekesi - *icipe*
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John Pickett - Rothamstead Research
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A repellent treated net for protecting cabbages against aphids

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Insect-proof nets with mesh size higher than 0.5 mm cannot efficiently protect cabbages against aphid infestation and insect-proof nets with very fine mesh reduce the ventilation. The objective of this study was to show the biological efficacy of a polyethylene knitted net with 0.9 mm mesh size impregnated with 1% alpha-cypermethrin, an excito-repellent insecticide, using the Olyset® process recommended for public health use by WHO. A cabbage crop was used to study the treated net efficacy in a statistical bloc design, compared with non-treated nets (with 0.9 or 0.4 mm mesh size). A non-protected control was included in the experiment. All cabbage pests where observed periodically and particularly the aphids: *Lipaphis erysimi*, *Brevicoryne brassicae* and *Myzus persicae*. In the same time, laboratory tests were used to show the insecticide susceptibility and the behavior of *M. persicae* stimulated to cross treated and non-treated nets. The major result was total protection of cabbages under the treated net against all aphid species during 10 weeks of monitoring until harvest. In the contrary *M. persicae* and *L. erysimi* outbreaks were both observed under non-treated nets. In the laboratory, the treated net did not show a toxic effect on *M. Persicae* and on the parasitoid *Aphidius colemani*. The bioassay with dipping leaves showed a highly resistance of *M. persicae* to alphacypermethrin. Therefore a repellent effect with the treated net was observed against *M. persicae* and against the parasitoid *A. colemani*. Thus that repellent treated net could be a solution for protecting vegetables against aphids with a low impact on beneficials.